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ABSTRACT

Described in terms of their objectives and their continuing validity and responsiveness to current developments, the United States information policies presented in this paper form the principles upon which the United States generally approaches international information policy issues. Various aspects of U.S. information policy which are discussed fall into two broad categories: the legal foundations of information dissemination and access, and the economics and management of information. (SW)

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THE FOUNDATIONS OF UNITED STATES INFORMATION POLICY

A United States Government Submission to the
High-Level Conference on Information,
Computer, and Communications Policy

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The Foundations of United States Information Policy

Abstract

A nation's international information policies do not exist in a vacuum, but rather are an extension of its domestic information policy perspectives. Thus, before any nation can adequately represent the interests of its own society in international forums, it must be cognizant of the objectives of its domestic information policies and it must evaluate their continuing validity and responsiveness to current developments. While the need for this understanding is not new, the pace of technological development has given new impetus to such deliberations within the United States and other nations as well.

This paper describes the focus of these deliberations in the United States. Certain fundamental policy assumptions emerge as the foundation of United States policies, although there is a need to strike balances in the significant tensions among these assumptions. This paper presents these assumptions as they manifest themselves in the information policies of the United States, and highlights the tradeoffs which they imply. The policies presented herein form the principles upon which the United States generally approaches international information policy issues.

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Introduction

As we enter the 1980's, one of the increasingly important issues on the international agenda is the flow of information across national boundaries. Information policies are policies about the conditions of information availability. International information policy issues arise not only as a result of the increasing awareness of the importance of information within a nation's internal affairs, but also as a logical consequence of the growing international exchange of information, in the form of both goods and services.

Our entrance into the new decade is marked by common awareness among many nations of the world that it is important to undertake -- or, in many cases, simply to continue in greater depth -- an examination of the role of information, as well as information technology, in their national affairs. This is both a valid endeavor in its own right and a prerequisite to participation in the growing international debate on these issues.

Just as a nation's overall foreign policy fundamentally tends to reflect its domestic policy perspectives, so too do a nation's international information policies reflect its domestic information policy perspectives. Moreover, if a nation examines its own domestic information policies in the process of formulating its international information policies, the result will be more coherent policies and a better representation of that nation's interests. However, it is difficult to delineate a country's domestic information policies with sufficient precision so as to be able to articulate with clarity what that nation's international information policy interests are. And, of course, a country cannot simply extend its domestic policies into the international arena, since it must also consider, and to a certain extent accommodate, the interests of other nations.

The development of both domestic and international information policies, although possibly a very elusive goal, is an important governmental endeavor because information has properties which underlie the effective functioning of modern society. Some of these properties are:

- Information is a resource. Like energy, capital, or labor, information is a resource that can be applied to achieve economic, social, or political goals.
- Information is a commodity. Information is sold, traded, or otherwise exchanged, frequently for financial or other reward to the person or organization sharing or giving up the information.

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- Information can conserve resources and increase productivity. The effective acquisition and use of information can turn them to more productive uses.

But perhaps even more interesting from a public policy point of view, information can also affect relationships in two very important ways:

- Information can mediate relationships. Information about an individual, for example, often forms the basis for his relationships with institutions or other individuals. The same is true of relationships between industries, firms within an industry, governmental units, or nations.
- Information can change relationships. Changes in the concentrations or flows of information can alter traditional relationships and power balances among people, organizations, governmental units, or nations.

Furthermore, it is this ability to mediate or change relationships which makes the role of information in society more pronounced, and hence more important.

New information technologies have the capacity to combine previously separate functions, such as mail delivery, print journalism, broadcasting, and office duties, into totally new or differently integrated services. Just as information technologies, especially computers and telecommunications, are converging, and thereby blurring traditional lines of distinction, so too are the lines of distinction blurring between information technology suppliers, information service providers, information technology users, and information users. The inevitable result of these changes is a blurring of the traditional approaches and lines of distinction between the various policy mechanisms established to deal with these issues and areas when they were separate and unique.

More than anything else, developments in information technology, particularly computers and telecommunications, have been the pacing factors in the emergence of information policy issues. Whether catalyst or cause, however, the role of technology in information policy is so pervasive that it is often difficult, and probably unnecessary, to draw a precise line between policies about information technology and policies about information per se.

When we make policies about international data networks, for example, we are also making policies about the international information flows that will take place over these networks. Regardless of what the issue is called -- data network policy, communications policy, or information policy -- in this case, as in so many others, the availability of the technology frequently influences who can send or receive information, the price at which it is available, and in some instances even

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the market structure for the service. And the more direct the influence, the more important it becomes to look beyond the questions of policies relating to the particular technology and to examine as well the overall consequences which the policy about the particular technology may have.

United States Information Policy

In the United States, as in other countries, there is no one grand information policy, no single national information policy, but rather a composite of policies, explicit and implicit, about information. In particular, aspects of United States domestic information policy can be divided into two broad categories: (1) the legal foundations of information dissemination and access; and (2) the economics and management of information.

The first category deals with rights and entitlements to information, with the conditions under which information is or is not available. It encompasses the constitutional and statutory policies for permitting, inhibiting, or requiring information to be made available or accessible. This category sets out the legal conditions to be met and the rights to be respected, whether information is distributed as a public good or through market mechanisms. In the United States, the initial assumption in this area is a policy of openness, with exceptions or limitations being made only for other overriding public policy concerns.

The second category deals with social and organizational efficiency, with the conditions of how information is to be distributed in the economy, once the fundamental decisions as to its availability and accessibility have already been made. It encompasses economic policies for distributing information, or for inhibiting or managing its distribution to certain sectors of society. This category sets out the laws and economic principles that have a significant impact on the workings of information markets and the management of information flows. It also considers the role of the Federal government as an economic force in assuring, restricting, and managing the distribution of information. In the United States, the initial assumption with regard to the distribution of information is to favor the use of free market mechanisms, with exceptions being made for overriding public policy considerations or in the case of market failures.

While these two categories are convenient for discussion, they also embody common societal objectives which reflect the basic constitutional philosophy of the United States. Although more could be listed, four interrelated objectives are especially significant. These are:

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- The ability of individuals to express their own thoughts freely is fundamental to an open, democratic society.
- Wide distribution of political information and information about the workings of government is essential to participation in the political process and to effective criticism of the government. The public needs this type of information to oversee the actions of government, and to protect itself against abuses of power.
- A diversity of thought and viewpoint promotes a "marketplace of ideas." For example, art, music, and literature are essential to cultural development; scientific and technical information underlies advancement in the areas of science and technology.
- Information enables individuals to make more effective decisions in all areas of their lives. For example, product-related information, such as cost, reliability, and safety information, influences consumer choices in the marketplace.

As noted above, United States information policies in the international arena will inevitably reflect the assumptions of United States domestic information policies. Since no two nations have precisely the same domestic information policy assumptions, however, accommodations occasionally will have to be made between differing, and sometimes competing, international information policies. Yet, as the subsequent discussion illustrates, the international arena is not unique in that balances and tradeoffs are continually required in domestic information policy as well. There are no absolutes, but rather only other competing interests, exceptions, and mitigating circumstances -- all leading to compromise and, ideally, consensus. Moreover, the balances to be achieved are not static, because the environment is not static. An ever-changing technological environment leads a dynamic element to this issue which only serves to ensure that whatever agreements and accords are reached must be flexible and amenable to change.

Category I. -- Individual Liberties and Societal Welfare

The basic presumption of United States policy is that information should be openly available, and that, in general, it should also be accessible (i.e., that there is a reasonable way to acquire the information). There are, of course, significant limitations on these presumptions, which are also embodied in Federal policy. In particular, the openness presumption applies mainly to government and not, as a

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general rule, to information held by individuals or private organizations, although this aspect of United States law is slowly changing to include certain private sector information as well.

The tension between openness and restriction regarding both information availability and accessibility reflects a more basic tension among the government's frequently conflicting roles in protecting civil liberties, individual and corporate property rights, and the societal welfare. Policies such as those embodied in the Freedom of Information Act and the First Amendment's prohibition of government interference with free speech and the press promote civil and individual liberties. Equally legitimate policies restrict the scope of the First Amendment by allowing the government to limit dissemination of and access to certain kinds of information (e.g., national security, obscene, and commercial information). These policies enable the government to protect society against certain widely perceived threats to its stability.

Conversely, certain policies permit compulsory access, particularly by government agencies, to information held either by persons or private organizations, as well as by other government agencies, when the information is deemed necessary to provide for the societal welfare. Other policies (e.g., those embodied in the Freedom of Information Act and the Government in the Sunshine Act) give individuals and organizations a right of access to government-held information. Some policies limiting access are intended to protect civil liberties (e.g., privacy and fair information practices) or individual or corporate property rights (e.g., proprietary or trade secret information).

Dissemination and Access

I. United States policy generally favors the wide availability of information, sometimes permitting, sometimes even encouraging, its dissemination and accessibility. Significant Federal policies address this presumption.

The First Amendment, prohibiting government interference with an individual's right to speak or write freely, is, of course, the centerpiece of United States information policy. While there are limited exceptions to this doctrine, it stands for the principle of open information exchange, for the creation of a "marketplace of ideas" where individuals and private organizations may generate and disseminate whatever information they wish.

The Federal government fosters public dissemination of the information that it generates or maintains. For example, most Federal agencies have public information offices which disseminate reports and other materials produced by on-

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going programs. In addition, the Government Printing Office and the National Technical Information Service distribute Federal publications and reports widely. Federal support for depository libraries in the form of free distribution of Federal documents to them, as well as Federal subsidies for public libraries and educational institutions, are other examples of the government's active encouragement of information dissemination to the public.

There are also policies which ensure the right of the public to learn about the workings of the Federal government by compelling agencies to disseminate information about their activities upon request. The Freedom of Information Act reflects a strong bias in favor of disclosing most information, with the permissible exceptions specifically stated in the law. The Government in the Sunshine Act requires Federal commissions and multi-member regulatory bodies to meet in public and to share materials relating to meetings with anyone requesting them. Here too, the general rule is to have proceedings in public, with the permissible exceptions specifically noted.

2. United States policy encourages diversity in both the source and the content of information because of the belief that a sufficient diversity of source and content will lead to a diversity of ideas. The Federal government has policies to foster this diversity with respect to newspapers, broadcasting, and cable television, for example. The Newspaper Preservation Act was intended to preserve a diversity of editorial voices by allowing newspapers, one of which is failing financially, to combine certain of their printing and commercial operations. United States policy is to allocate abundant spectrum for broadcast operations (e.g., 8,500 radio stations and 1,000 television stations) and to increase the number of such stations by new technological approaches or support for non-commercial operations. Also, the broadcast ownership rules, which limit the number of stations one company can own both in a given market and overall, are intended to encourage a number of sources in the dissemination of information to a particular audience.

The Fairness Doctrine, which makes licensing of broadcast stations dependent on their fairly offering a range of informational programs, addresses diversity of content directly, with enforcement, in this case, being one of the few instances of government regulation on the basis of content. There is, however, a tension -- and, some would argue, an inconsistency -- between the policy of the Fairness Doctrine and the First Amendment's prohibition against government intrusion into the editorial judgment of the press. While the Supreme Court has affirmed the constitutionality of the Fairness Doctrine for broadcasting in a 1969 decision, five years later it held that a similar policy for the print media was unconstitutional.

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3. Advances in technology tend to lower the cost of disseminating and receiving information and consequently increase the opportunity to make information available and enable more diversity. However, these advances also raise serious policy choices. For example, under which regulatory model, print or broadcast, do cable television or videotex systems fall? As these systems become prevalent, with their enormous capacity to carry information into the home and office, Federal policies about how to achieve diversity of source and content will require re-examination. These are examples of technological developments blurring traditional lines of distinction.

4. Regardless of the medium, certain categories of information are not readily available or accessible. The Federal courts have interpreted the prohibition against government interference with free expression to have some limits. These limits are intended to protect certain societal, individual, or proprietary interests generally considered necessary for a stable, well-functioning society. Some significant types of societal interests protected by limiting information availability are:

- The government's effectiveness in protecting or promoting national security or the general welfare (e.g., military, strategic, foreign policy, and law enforcement information).
- The protection of society from the influence of information that offends traditional social mores (e.g., pornography) or that is false or deceptive (e.g., false advertising or libel).
- Protection of personal privacy and of an individual's ability to control his own life to the maximum extent possible (e.g., information about individuals, particularly where held in record systems of large organizations or institutions).

In addition to the substantive limitations, policies may also limit the time, place, or manner in which information can be disseminated or received. The "prime time access" rule for the broadcast industry, or the discussions about sex education in the schools, are examples of these sorts of limitations. Less controversial, but also important, limitations would include prohibitions against speech that represents a clear and present danger, such as yelling "fire" in a crowded theater.

5. Whereas the presumption is that information generated by the government should be generally available, United States policy generally presumes that information generated or held in the private sector need not be available or

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accessible, except on terms set by the person or organization possessing it. Ordinarily, information in the private sector is exchanged for compensation. However, where the government needs privately held information to perform its functions of protecting society or individuals, or to permit more effective or efficient operations on behalf of society, then it can have access to this information, although usually only under certain conditions.

Policies authorizing the Federal government to gather information from private sources generally indicate with some specificity the information to be collected, the source, the purpose, and the procedures involved, because without such specificity the government would have access to most privately held information. This, in turn, would afford the government the opportunity to intrude extensively into the affairs of the private sector, with the highly undesirable effect of creating a controlled, non-democratic society.

Privacy and Fair Information Practices

i. In one particular case -- namely, the case of information about individuals -- there is also a growing recognition, both domestically and internationally, that information about individuals, particularly recorded information, has unique characteristics which require that it be given special treatment. Perhaps the prime motivation for this view, in the United States at least, is the realization that the legal protections relating to personal information have not kept pace with social and technological changes. Recorded personal information held by large organizations provides an example.

When the United States legal structure was developed, most recorded information of an intimate or revealing nature, such as financial records, was held by the individual, and was generally protected by common law and by the Fourth and Fifth Amendments. Today, much personal information is relinquished to organizations, including government agencies, which require it in order to provide essential services. In most cases, this information then becomes the property of the record keeper, and the individual gives up all legal rights over it. As a result, the individual has little protection against others obtaining and using financial, medical, and similar personal information about him, and consequently he experiences a loss of control over the events and decisions that shape his life. Generally speaking, legislation has become necessary to establish greater parity between individuals and organizations in the record-keeping process.

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2. United States privacy policy is based on two principles:

- **Fair Information Practices.** Standards must be provided for handling sensitive personal records. Individuals should be told what kind of information is being collected about them, how it will be used, and to whom it will be disclosed. They should be able to see and obtain a copy of the records and correct any errors. They should be told the basis for an adverse decision that may be based on recorded personal information. And they should be able to prevent improper disclosure of records pertaining to them.
- **Limits on Government.** Government access to and use of personal information must be limited and supervised so that power over information cannot be used to threaten individual liberties.

United States policy is also beginning to recognize a fundamentally new type of privacy problem which is uniquely the result of developments in technology. The use of on-line information systems, particularly as they reach into the home and the office in their newer forms (e.g., videotex; electronic funds transfer, electronic mail, remote data bases), not only store large amounts of information about individuals, but they also enable the system provider to determine that a particular individual is, in fact, using the system at a particular time. The emerging policy response to this on-line, real-time surveillance capability is to limit access to such locating information, except through appropriate forms of compulsory legal process.

Category II. — Economic Efficiency and Social Equity

The fundamental presumption of a largely free market economy, as in the United States, is that whenever possible there should be maximum competition among private sector organizations for the production and distribution of goods and services. This also applies to the production and distribution of information goods and services. Unlike most other countries in the world, in the United States, basic communications services, such as radio, television, and telephone, are provided by the private sector. Increasingly, these services are available on a competitive basis, although in some instances there are significant economic factors, such as economies of scale, that inherently limit the amount of competition that is feasible. In addition, new electronic services are emerging that are similar to, and even combinations of, telephone, mail, broadcasting, and print publications, and

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these are greatly expanding opportunities for both information providers and consumers.

United States patent and copyright law have a constitutional basis which recognizes and encourages competition in the realm of information creation by establishing an incentive system tied to concepts of private property. Technological developments are, however, challenging both the basis and the operation of this system. Unauthorized copying of books and articles, as well as piracy of broadcast programs, lessen the economic incentive to individuals and private organizations of creating information. This, in turn, could lead to a reduction in the output of new ideas and materials.

The consequence of a highly competitive system for disseminating information and for providing information services, combined with the basic presumption that it is desirable for society to have the maximum amount of information available and accessible, is that individuals will be exposed to a great deal of information. Unless care is taken to manage this cascade of information, people may be overwhelmed, with the result being that they simply tune out (e.g., by listening to the broadcast media less or by reading fewer newspapers), do not concentrate on what is being said, or pay attention to only a few sources of information that they consider reliable. Particularly for decision makers -- executives, managers, and policymakers, for example -- the management of information becomes especially important. Hence, decision makers are continually attempting to develop filtering mechanisms to direct appropriate, timely information to them with a minimum of diversion to irrelevant details. Technology plays a dual role here because of its capacity to increase and diversify information flows, as well as its capabilities for sorting, reducing, storing, and targeting information for use on a highly individualized basis.

The principal tension regarding the creation, production, distribution, and management of information is between achieving productive efficiency by organizations or individuals and assuring equitable access to information and information services by all sectors of society. Some competing interests are:

- Pricing information goods and services to obtain a profit may make them too expensive for many categories of consumers. A competitive market structure, while it generally holds the prices of goods down, may not provide a mechanism for subsidies to those who need certain information services and cannot afford to pay the going rate to get them.

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- The protection of intellectual property, either by patent or copyright, so that it is not available to consumers without cost, encourages the creation of ideas, inventions, and other works, but limits their distribution.
- The distribution of information intended for, or directed at, specific consumers through electronic systems may discourage or eliminate those consumers who cannot afford to pay for the service or who do not have the access to -- or, in some cases, the expertise to operate -- the sophisticated computer and telecommunications technologies through which the information flows.

The resolution of these interests in an attempt to achieve a balance between the efficient and equitable production, distribution, and use of information goods and services is reflected in United States economic policy, constitutional interpretation, and Federal information management policy. Furthermore, all of these are predicated on the resolution of the tensions between the personal, societal, and proprietary interests in information itself that were described above.

Market Structure and Pricing

1. The market structure of the industries that distribute information goods and services, whether it is competitive or monopolistic, free or regulated, plays an important role in determining who communicates what sorts of information to various audiences. It also determines the incentives for innovative uses of information technologies and services.

2. Information is different in some significant ways from tangible commodities that are sold in the marketplace. Because of this, markets for information products may not operate in the same ways as markets for tangible commodities.

The atypical characteristics of information are:

- The same information can be possessed by many persons simultaneously. The same car or pair of shoes, on the other hand, cannot.
- It is difficult to prevent persons who wish to do so from possessing particular pieces of information. If, for example, a business wants to sell information to a limited number of people, it may not always be able to prevent others from obtaining that information for free, thereby potentially reducing its value to the original paying consumers, as well as potentially depriving the provider of additional revenue.
- It is difficult to determine the value of information to a particular consumer without disclosing the information -- that is, the object of the

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sale itself -- and consequently lowering its value. A description of breakfast cereal as delicious, however, or a display of dresses on a rack, enhance their value to consumers.

- Information cannot be depleted, although it can become obsolete, or its usefulness for a particular purpose can be diminished. Frequent use of current information does not wear it out, as would frequent use of a new hat or a bicycle.
- It is difficult to divide information into clearly separate units, to say for example, that a book contains 16 ideas to be sold at 10 cents each. However, this is a common method of pricing tangible commodities.

3. United States policy is based upon the belief that whatever can be distributed through a free market should be, and this includes information goods and services. There are, however, inefficiencies in information markets -- that is, interferences with the free market -- that result from the atypical characteristics of information, and these can have a significant impact on policy choices regarding information distribution. Some of these inefficiencies are:

- Information production and distribution often tends toward economies of scale and scope; that is, larger firms tend to operate at lower unit costs, whether producing a single product, in the case of economies of scale, or a variety of products, in the case of economies of scope. Moreover, in many instances, the marginal cost of producing information products is quite low compared with other goods and services.
- There can be structural and pricing barriers to the entry of information firms into the market. In some cases, regulation forecloses entry of new firms. For example, the regulation of existing telephone companies as de facto monopolies for the provision of telephone lines has, at times, foreclosed the entry of other companies into this market. Also, existing firms can acquire scarce resources (e.g., orbital slots for satellites) and can price products so as to keep new firms from competing.
- The government's enforcement of anti-trust laws seeks to break up anti-competitive market structures and pricing arrangements and encourages competition, but the government itself can create inefficiencies if it arbitrarily divides up markets.

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4. Significant interference with the principle of a free market for information results from fundamental notions of the desirability of equitable distribution of certain information goods and services. Policies to achieve equity enhance the participation of certain sectors of society that could not otherwise afford to purchase information goods and services at the going commercial rates. Government or private sector subsidies of information goods or services are means of achieving this objective. Universal telephone service, with its public (e.g., the Rural Electrification Administration) and private subsidies, is an example of this phenomenon, as is the current structure of postal rates. The frequently interdependent pricing schemes -- price discrimination and cross-subsidies -- finance equitable rates for consumers. Unlike non-regulated, profit-making firms which would face strict anti-trust barriers, non-profit publishers and Federally regulated monopolies, such as AT&T and its partners, frequently are encouraged, or even sanctioned by law, to use these schemes to provide universal or other equitable distribution of information goods or services.

5. The Federal government, of course, plays a major role in the markets for information goods and services. In addition to regulating information markets, the government produces and distributes information itself, either because the private sector is not willing to do so or because the government has an interest in informing the public on a variety of topics. When the private sector is able to package and distribute Federally generated information, there is a general presumption that it should be encouraged to do so. However, there are legitimate issues as to whether the government should itself distribute information when it can do so at lower cost to the consumer, although here too there are questions as to how such costs should be calculated.

6. The structure of information markets has a significant impact on the diversity of both the source and the content of the information distributed. For example, in the mass telecommunications media, where advertising is the major source of revenue to information providers, and where large audiences for few programs are essential, there are practical limits to the amount of diversity possible. The amount of cross-ownership among newspapers, radio and television stations, cable systems, and other media may also affect the amount of diversity, as does the desire of firms to produce a number of different information products. Policies such as limiting cross-ownership of media, compulsory access to media in certain circumstances, or operation of mass media conduits as common carriers, similar to telephone communications, have, at times, been adopted.

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Incentives to Create Information

1. There are essentially two ways in which the Federal government encourages individuals to create information by establishing a private property right in the information created, and by direct or indirect subsidies for information creation. In addition, state law and the common law of unfair competition permit the proprietary protection of useful information as trade secrets.

The United States, as stated in the Constitution, relies on copyrights and patents as its principal mechanisms for encouraging the creation of information. This emphasis reflects the belief that private enterprise, rather than government, should supply most goods and services.

2. Some types of information goods and services developed in the past few decades as an outgrowth of emerging technologies do not fit easily under the traditional categories of legal protection. For example, computer software possibly could be protected either under copyright law as the work of an author, or under patent law as the discovery of an inventor, or under both, or under neither.

Furthermore, the capacity of new technology to copy and alter written, recorded, or broadcast material, including computer-readable works, poses problems for the protection of intellectual property rights. It is now extremely easy to reproduce materials and to distribute them without the knowledge of their creator. It is also easy to alter computer programs so that they no longer qualify as the exclusive work of their originator.

3. Government subsidies of information creation -- that is, payment directly through grants or contracts -- are immune from the problems which plague copyright and patent protections. Subsidies provide two advantages over intellectual property rights. They are able to encourage creation of more information by guaranteeing payment to the creators, thereby eliminating concern over reproduction of work. In addition, they eliminate the need for a legal doctrine that makes artificial distinctions among works based on content or form. However, government subsidies of information creation substantially increase the opportunity for the government to exercise censorship or otherwise control the content of the information created.

Intellectual property rights have advantages in the context of societal values of open availability of information. They enable creation of information without government control of its content, and they are usually more responsive than subsidies to consumer needs.

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Managing Information

1. No consideration of information policy would be complete without mention of information management. In some discussions, information policy is erroneously taken to be synonymous with information management. More correctly, information management is merely one aspect of information policy. This confusion is particularly understandable, however, because of the well known problem encapsulated by the platitude: "Most people and organizations have an overload of data but a scarcity of information that is meaningful to them."

Information management not only deals with the needs of individuals and organizations to convert data into usable information, but it also deals with the problems of getting the right information to the right people at the right time and in the right form. Problems of information glut and information scarcity are two aspects of information management. So too are problems of information redundancy, faulty information, unreasonable burdens on those from whom an organization requests information, and excessive costs of handling information within an organization. Organizations, especially government agencies, frequently treat information collection as though it costs the information provider little or nothing to fulfill the requests. But the costs to information providers, especially when these providers are other organizations, can, in fact, be quite substantial although they may be hidden or passed on to consumers.

2. The Federal government has a number of policies, often embodied in law or regulation, governing its own information management, which operate with varying degrees of effectiveness. Five important Federal statutes in this area are: The Federal Records Act, the Federal Reports Act, the Brooks Act, the Privacy Act of 1974, and the Freedom of Information Act.

Some generally recognized policies of information management are being tried by Federal agencies in an attempt to overcome the symptoms listed above. These include: establishing mechanisms for sharing information among agencies, involving users more heavily in the design of management information systems, increased policy level decision making about information management, closer coordination among agencies and organizations with similar responsibilities for the management of data and information, and education and training of a variety of categories of personnel both to manage and use information systems more effectively.

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Conclusion

A review of the legal and economic foundations of United States domestic information policy brings to mind a host of international information policy issues, the resolution of which directly involves the United States in negotiations with other nations. Concerns similar to both industrialized nations and developing countries are reflected in United States domestic policy. A few examples highlight some common concerns of the United States and other nations.

- The telephone and message service industries in the United States are becoming increasingly competitive, and their partial or complete deregulation may be just over the horizon. As United States services interconnect with government owned and operated facilities in other nations, significant questions arise about such matters as pricing policies, negotiating representatives, and definitions of universal service.
- As United States data bases become increasingly accessible to users in other countries, questions arise in particular about the sharing of United States government generated or subsidized information available to requestors the world over under the Freedom of Information Act, with no requirement of reciprocity from foreign governments.
- The knotty problems of United States copyright law, particularly regarding consent for copying and eligibility of a work for copyright, take on new dimensions as electronic systems speed creative works of Americans to consumers in all corners of the world.
- The domestic conflict that inevitably arises between privacy protection for personal information and open availability and accessibility of information in general becomes even more complex as personal information is regularly transmitted across national boundaries.

These issues are merely a sampling of the kinds of international information policy issues that will arise in bilateral and multilateral discussions in the years to come. The United States looks forward to debating these and other international information policy issues in an atmosphere of mutual understanding of each country's domestic information policy perspectives.

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